

Appl. No. 09/636,145  
Amdt. dated April 6, 2004  
Reply to Office Action of Oct. 6, 2003

### REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action, dated October 6, 2003. A petition for a three-month extension of time, including the appropriate fee, is submitted herewith. Claims 1-9 were originally filed with the application on August 10, 2000. Claim 9 was withdrawn in the Response to Election Requirement, dated February 1, 2002. Claims 1-8 are currently pending. Claim 1 is independent.

#### Amendment to the Abstract

In response to the Examiner's comments regarding the abstract, Applicant has amended the abstract in accordance with the Examiner's helpful suggestions. No new matter has been added.

As such, Applicant respectfully requests that the Examiner withdraw the objection to the Abstract.

#### Amendment to the Specification

Applicant has amended the paragraph beginning at page 16, line 17, through and including page 17, line 6, so as to clarify that substantially no nip pressure is exerted on the paper medium web in those areas where the medium is sandwiched between the depressions provided on one of the tooth tips of one corrugating roll and one of the tooth roots of the other corrugating roll at the corrugation impression zone, while sufficient nip pressure is exerted on other areas of the paper medium web in those areas where the medium is sandwiched between one of the tooth tips of one corrugating roll and one of the tooth roots of the other corrugating roll at the corrugation impression zone.

No new matter is added by this amendment, as the amendment merely clarifies what was disclosed in earlier sections of the specification. Specifically, in the paragraph beginning at page 10, line 11, through and including page 10, line 19, it states the following:

Page 6 of 10

SSI-DOCS1 1442979v3

Appl. No. 09/636,145  
Amdt. dated April 6, 2004  
Reply to Office Action of Oct. 6, 2003

Since, as has already been stated, each depression of one of the corrugating rolls has a bottom surface which is located to establish a spacing between the bottom surface of the depression and one of the tooth roots of the other corrugating roll, substantially no corrugating nip pressure is exerted on the paper medium at said some areas, thereby preventing failure of the fibers in the paper medium web while at the same time sufficient corrugating nip load is imposed on the paper medium web at said other areas.

As such, no new matter has been added by the present amendment to the specification.

#### **Objections to the Drawings**

The Examiner has objected to the drawings under 37 C.F.R. §183(a) as not showing the "gluing means" of claim 8. Applicant respectfully traverses this rejection insofar as FIG. 5 clearly depicts the gluing means 120, which includes glue applicator roll 170, doctor roll 180, and glue reservoir 190. See also Specification, p. 2, lines 10-29; p. 17, lines 7-11. Because FIG. 5 already shows the claimed gluing means, Applicant submits that no amendment to the drawings is required. Accordingly, Applicant requests that the Examiner withdraw the objection.

#### **Rejection Under 35 USC § 102(b)**

In the Office Action dated October 6, 2003, claims 1, 2, 4-8 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 3,419,937 to Bally. Applicant respectfully submits that the claims present novel features not disclosed by Bally. Thus, applicant submits that the claims are in allowable form.

##### **1. Rejection of Independent Claim 1**

(a) *Bally Does Not Disclose Depressions Provided In The Tops Of The Tooth Tips.*

The Examiner asserts that Bally discloses each and every element of independent claim 1 of the present application. Particularly, the Examiner asserts that Bally discloses "depressions

Appl. No. 09/636,145  
Amdt. dated April 6, 2004  
Reply to Office Action of Oct. 6, 2003

provided in the tops of the tooth tips" via the cylindrical portion 60 of FIG. 2 of Bally. However, an examination of FIG. 2 of Bally reveals that the tooth tips 54 are in fact removed from the portion of crimping roll 40 where the annular depression 60 is formed. The annular depression 60 exists on the outer surface of crimping roll 40 instead of on the "tops of the tooth tips" themselves as in claim 1. This distinction is made clear by comparing FIG. 2 of Bally with FIG. 2 of the present application, which depicts "depressions [28] provided in the tops [26] of the tooth tips [22] of at least one of the corrugating rolls [12a]...." Accordingly, Bally does not disclose the element of claim 1 whereby depressions are provided in the tops of the tooth tips.

*(b) Bally Does Not Disclose Depressions Spaced Apart A Predetermined Distance Along The Length Of The Roll*

Even if annular depression 60 is considered to be a depression "provided in the tops of the tooth tips", which Applicant submits, for the reasons set forth above, it is not, because Bally describes only one such depression 60, Bally does not disclose "depressions provided in the tops of the tooth tips of at least one of the corrugating rolls and spaced apart a predetermined distance along the length of the roll." As shown by FIGS. 2, 4, and 5 of Bally, only a single depression 60 is described in each of the rolls. However, "depressions" plural are required in at least one of the corrugating rolls, and neither roller 40 nor 42 of Bally FIGS. 2, 4, and 5 contains more than a single depression 60. In contrast, FIG. 2 of the present application clearly shows multiple depressions 32 spaced apart a predetermined distance D along the length of the roll. Thus, Bally does not disclose a plurality of "depressions" in "at least one of the corrugating rolls" so as to be "spaced apart a predetermined distance along the length of the roll" as required by claim 1.

Appl. No. 09/636,145  
Amdt. dated April 6, 2004  
Reply to Office Action of Oct. 6, 2003

2. Rejection of Dependent Claims 2, 4-8

In light of the arguments set forth above in connection with independent claim 1, Applicant respectfully submits that dependent claims 2, 4-8 are also allowable as depending from an allowable base claim.

Rejection Under 35 USC § 103(a)

In the Office Action dated October 6, 2003, claim 3 was rejected under 35 U.S.C. §103(a) as being rendered obvious by U.S. Patent No. 3,419,937 to Bally. Applicant respectfully traverses such rejection and submits that the claimed feature of "said bottom surface of each of said depressions is of a generally convex arc configuration in a direction toward the other corrugating roll with a radius of curvature greater than that of the tooth tips of said at least one of the corrugating rolls" in claim 3 is not "an obvious matter of design choice" as suggested by the Examiner.

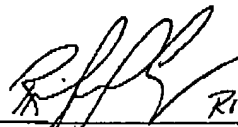
In any case, in light of the above arguments in connection with independent claim 1, Applicant respectfully submits that dependent claim 3 is also allowable as depending from an allowable base claim.

Appl. No. 09/636,145  
Amdt. dated April 6, 2004  
Reply to Office Action of Oct. 6, 2003

### CONCLUSION

Early and favorable consideration of the present application in view of the arguments provided herein is respectfully requested. If the Examiner is not in a position to allow all claims as presently amended, the Examiner is urged to call the undersigned attorney at 212-806-6660. Any additional fees or charges required at this time or in the future in connection with the present application are hereby authorized to be charged to Deposit Account No. 19-4709.

Respectfully submitted,

  
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